

Status of Claims

1 (currently amended). A ~~multi-modal~~ system for transport of particulate material comprising:

- (a) a plurality of ship based hoppers mounted within the hold of a ship, each of which hoppers comprises:
 - (i) a container for particulate material;
 - (ii) a container inlet ~~by which~~ for loading of particulate material ~~can be loaded~~ into the container by entrainment;
 - (iii) a container outlet ~~through which~~ for particulate material ~~can be unloaded from the container by entrainment;~~

wherein each ship based hopper includes only one container inlet and only one container outlet;
- (b) a product loading internal manifold located within the hold of the ship and connected to a the container inlet for a at least some of the plurality of ship based hoppers;
- (c) a product unloading internal manifold located within the hold of the ship and connected to a the container outlet for a at least some of the plurality of ship based hoppers, said product unloading internal manifold being adapted to transport material received from said ship based hoppers by entrainment.

2 (original). The system of claim 1 wherein a group of eight ship based hoppers are joined by a common product loading internal manifold and a common product unloading internal manifold.

3 (currently amended). The system of claim 1:

wherein:

- (a) a the product loading internal manifold located within the hold of the ship ~~and~~ is connected to a container inlet for each of the ship based hoppers;
- (b) a the product unloading internal manifold located within the hold of the ship ~~and~~ is connected to a container outlet for each of the ship based hoppers; and

which includes:

- (c) a product loading dock-side inlet that is accessible to a shore based transport for transfer of particulate material to the ship based hoppers through the product loading internal manifold by entrainment;
- (d) a product unloading dock-side outlet that is accessible to a shore based transport for transfer of particulate material from the ship based hoppers through the product unloading internal manifold to a shore based transport.

4 (original). The system of claim 1 wherein each of the ship based hoppers comprises a container having a generally cylindrical body section and a conical hopper section located beneath the body section.

5 (original). The system of claim 1:

- (a) which includes a controller; and
- (b) wherein each of the container inlets and container outlets includes a valve; and
- (c) wherein each of the ship based hoppers includes a load sensor that is connected to the controller and adapted to trigger the opening and closing of the valves during transfer of particulate material to the ship based hoppers through the product loading internal manifold by entrainment.

6 (original). The system of claim 5 wherein each of the ship based hoppers includes a pressure transducer that is connected to the controller and adapted to trigger the opening and closing of the valves during transfer of particulate material from the ship based hoppers through the product unloading internal manifold by entrainment.

7 (original). The system of claim 1 wherein:

- (a) a plurality of support structures are provided within the hold of the ship; and
- (b) each of the ship based hoppers includes a plurality of attachment members, each of which is adapted for attachment to a support structure.

8 (original). The system of claim 7 wherein the ship based hoppers and support structures are arranged so that attachment members of at least two hoppers are secured to each support structure.

9 (currently amended). A ~~multi-modal~~ system for transport of particulate material comprising:

- (a) a plurality of support structures that are provided within the hold of ~~the~~ a ship;
- (b) a plurality of ship based hoppers mounted within the hold of a the ship, each of which hoppers comprises:
 - (i) a container for particulate material, said container including a generally cylindrical body section, a dome-shaped top section located above the body section, and a conical hopper section located beneath the cylindrical section;
 - (ii) a container inlet ~~by which~~ for loading of particulate material ~~can be loaded~~ into the container by entrainment;
 - (iii) a container outlet ~~through which~~ for unloading of particulate material ~~can be unloaded~~ from the container by entrainment;
 - (iv) a plurality of attachment members, each of which is adapted for attachment to a support structure;
- (b) a product loading internal manifold located within the hold of the ship and connected to a the container inlet for each ship based hopper;
- (c) a product unloading internal manifold located within the hold of the ship and connected to a the container outlet for each ship based hopper.

10 (original). The system of claim 9 which includes:

- (a) a product loading dock-side inlet that is accessible to a shore based transport for transfer of particulate material to the ship based hoppers through the product loading internal manifold by entrainment;
- (b) a product unloading dock-side outlet that is accessible to a shore based transport for transfer of particulate material from the ship based hoppers through the product unloading internal manifold to a shore based transport.

11 (original). The system of claim 9 wherein the ship based hoppers and support structures are arranged so that attachment members of at least two hoppers are secured to each support structure.

12 (withdrawn). A method for transferring particulate material from a shore based transport to a ship, which method comprises:

- (a) providing a plurality of ship based hoppers mounted within the hold of a ship, each of which hoppers comprises:
 - (i) a container for particulate material;
 - (ii) a container inlet by which particulate material can be loaded into the container by entrainment;
 - (iii) a container outlet through which particulate material can be unloaded from the container by entrainment;
- (b) providing a product loading internal manifold located within the hold of the ship and connected to a container inlet for each ship based hopper;

- (c) providing a product unloading internal manifold located within the hold of the ship and connected to a container outlet for each ship based hopper;
- (d) providing a product loading dock-side inlet that is accessible to a shore based transport for transfer of particulate material to the ship based hoppers through the product loading internal manifold by entrainment;
- (e) providing a product unloading dock-side outlet that is accessible to a shore based transport for transfer of particulate material from the ship based hoppers through the product unloading internal manifold to a shore based transport;
- (f) providing a shore based transport having:
 - (i) a container for containing particulate material, said container including a pressurizing gas inlet, an outlet for discharging particulate material from said container, and a material conveying conduit connected to said material discharge outlet;
- (g) providing a source of pressurizing gas;
- (h) introducing pressurizing gas into the container;
- (i) introducing pressurizing gas into the material conveying conduit;
- (j) discharging material through the material outlet into the material conveying conduit;
- (k) entraining the material that has been discharged through the material outlet with the pressurizing gas in the material conveying conduit;
- (l) conveying the material through the material conveying conduit through the product loading dock-side inlet and the product loading internal manifold and into a container inlet for a ship based hopper.